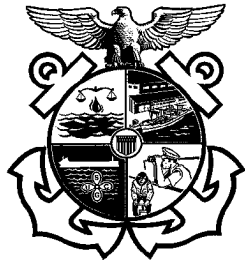


United States Coast Guard



**TANKSHIP
INSPECTION BOOK**

Name of Vessel		
Official Number	Class	
Date Completed	Location	
Vessel Built in Compliance with SOLAS: 60 74 74/78 N/A		
Route		
Oceans	Limited Coastwise	Lakes / Bays / Sounds
Coastwise	Great Lakes	Rivers
Inspection Type		
Inspection for Certification (COI)		Reinspection
Inspectors		
1. _____	3. _____	
2. _____	4. _____	

Total Time Spent Per Activity:

Regular Personnel (Active Duty)			
ACTIVITY TYPE	ACTIVITY	TRAINING	(PERS) MI

TOTAL ADMIN HOURS	TOTAL TRAVEL HOURS
-------------------	--------------------

Reserve Personnel			
ACTIVITY TYPE	ACTIVITY	TRAINING	(PERS) MI

TOTAL ADMIN HOURS	TOTAL TRAVEL HOURS
-------------------	--------------------

Auxiliary Resources	
TOTAL BOAT HOURS	TOTAL AIRCRAFT HOURS

Use of Tankship Inspection Book:

This inspection book is intended to be used as a job aid by Coast Guard marine inspectors during inspections of U.S. flagged tankships. The lists contained within this book are not intended to limit the inspection. Each marine inspector should determine the depth of inspection necessary. A checked box should be a running record of what has been inspected. It does not imply that the entire system has been inspected or that all or any items are in full compliance. This job aid does not constitute part of the official inspection record.

This document does not establish or change Federal laws or regulations. References given are only general guides. Refer to IMO publications, CFR's, NVIC's or any locally produced cite guides for specific regulatory references. Not all items in this book are applicable to all vessels.

NOTE: *Guidance on how to conduct inspections of U.S. flagged tankships can be found in the Marine Safety Manual (MSM) Volume II, Chapter 6: Inspection of Vessels for Certification. All MSM cites listed in this book refer to MSM Volume II unless otherwise indicated.*

Guide to Examinations:

- ☐ All vessels
- ☐ Vessels carrying dangerous cargoes in bulk

Pre-inspection Items:

- Review MSIS records.
 - MIPIP
 - MICOI
- Obtain copies of forms to be issued.

Post-inspection Items:

- Issue letters/certificates to vessel.
- Complete MSIS entries.
 - MIAR
 - MSDS
 - MIDR
 - VFLD
 - VFID
- Initiate Report of Violation (ROV) if necessary.

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Section 1: Administrative Items

IMO Applicability Dates:

Reference	Date
SOLAS 1960	26 MAY 65
SOLAS 1974	25 MAY 80
1978 Protocol to SOLAS 1974	01 MAY 81
1981 Amendments (II-1 & II-2)	01 SEP 84
1983 Amendments (III)	01 JUL 86
<i>Various additional amendments to SOLAS</i>	
MARPOL 73/78 Annex I	02 OCT 83
MARPOL 73/78 Annex II	06 APR 87
MARPOL 73/78 Annex III	01 JUL 92
MARPOL 73/78 Annex V	31 DEC 88
IBC Code	After 01 JUL 86
BCH Code	Prior to 01 JUL 86
IGC Code	After 01 JUL 86
IGC Code (for existing vessels)	Prior to 01 JUL 86
COLREGS 1972	15 JUL 77
<i>Various additional amendments to COLREGS</i>	
Load Line 1966	21 JUL 68
STCW 1978	28 APR 84
1991 Amendments	01 DEC 92
1994 Amendments	01 JAN 96
1995 Amendments	01 FEB 97

Involved Parties & General Information:

Vessel's Representatives _____ _____
Phone Numbers

Owner—Listed on DOC or COFR
No Change

Operator
No Change

Vessel Information:

Classification Society	
ISM Issuer: Same as above? Yes No If not the same, which Recognized Organization? _____	
NOTE: The period of validity for ISM documents should correspond to the following list. If they do NOT, ISM documents should be further investigated.	
<input type="checkbox"/> 5 years = Full term (SMS and DOC) <input type="checkbox"/> 12 months = Interim (DOC)	
<input type="checkbox"/> 6 months = Interim (SMC) <input type="checkbox"/> 5 months = Short term (SMC)	
Gross Tons	No Change (VFMD)
Net Tons	No Change (VFMD)
Built Date (use delivery date)	No Change (VFCD)
Overall Length (in feet)	No Change (VFMD)
Does vessel meet double-hull requirements? Yes No If not, vessel must meet requirements by _____ (date) in accordance with 33 CFR Part 157 Appendix G.	
Last Three Cargoes 1. _____ 2. _____ 3. _____	
Is pumproom gas-free?	Yes No N/A

Vessel Description:

Crude Carrier

Combination

Product Carrier

Oil / Bulk / Ore

Chemical Carrier

Other

Section 2: Certificates and Documents

Name of Certificate	Issuing Agency	ID #	Port Issued	Issue Date	Exp. Date	Endors. Date
Certificate of Documentation No Change	USCG					
Classification Document No Change						
Certificate of Financial Responsibility (COFR) No Change	USCG					
Safety Construction (SLC) No Change						
Safety Equipment (SLE) No Change	USCG					
Safety Radio (SLT) No Change						

Name of Certificates	Issuing Agency	ID #	Port Issued	Issue Date	Exp. Date	Endors. Date
International Load Line (ILL) No Change						
International Oil Pollution Prevention w/Form B (IOPP) No Change						
Certificate of Fitness (COF) No Change	USCG					
International Tonnage (ITC) No Change						
Safety Management (SMC) No Change						
Document of Compliance (DOC) No Change						

Certificates:

- | | | |
|--------------------------|---------------------------------------------------------------------------|----------------------------------------------|
| <input type="checkbox"/> | COI posted | 46 CFR 31.05-5
46 CFR 153.901 |
| | • All pages visible | |
| <input type="checkbox"/> | ISM Code | SOLAS 74/78 IX/3 |
| | • Safety Management System | |
| | • Shipboard Operations Plan | |
| <input type="checkbox"/> | Stability letter posted | 46 CFR 35.08-1 |
| <input type="checkbox"/> | Waste management plan
(oceangoing vessels ≥ 40 feet) | 33 CFR 151.57 |
| <input type="checkbox"/> | Annual drug and alcohol program audit | 46 CFR Part 16 |
| <input type="checkbox"/> | Officers' licenses current | 46 CFR 35.05-1 |
| <input type="checkbox"/> | GMDSS endorsement | 47 CFR Part 80 |
| | FCC Station License | |
| | Safety Radio Certificate | |
| <input type="checkbox"/> | GMDSS maintenance personnel | 47 CFR 80.1074 |
| | 1st Class Radiotelegraph Operator's Certificate | |
| | 2nd Class Radiotelegraph Operator's Certificate | |
| | 3rd Class Radiotelegraph Operator's Certificate | |
| <input type="checkbox"/> | Required international safety convention
certificates posted and valid | 46 CFR 31.40-35 |
| <input type="checkbox"/> | Liferaft servicing certificates | 46 CFR 160.151-57(p)
SOLAS 74/78 III/19.8 |
| | • Annual service | |
| <input type="checkbox"/> | Cargo Gear Certificate | 46 CFR 31.37-75 |

Notes: _____

Logs and Manuals:

- | | | |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| <input type="checkbox"/> | Lifesaving equipment maintenance record | 46 CFR 199.190(e)
SOLAS 74/78 III/19 |
| | <ul style="list-style-type: none">• Periodic checks as required• Visual inspection of survival craft / rescue boat and launching appliances• Operation of lifeboat / rescue boat engines• Lifesaving appliances, including lifeboat equipment examined | |
| <input type="checkbox"/> | Emergency training and drills | SOLAS 74/78 III/18 |
| | <ul style="list-style-type: none">• Onboard training in use of lifesaving equipment (all crew members)• SOLAS training manual• Logbook records• Fire and lifeboat drills• General alarm tested | 46 CFR 199.180
SOLAS 74/78 III/18.5
SOLAS 74/78 III/25 |
| <input type="checkbox"/> | Bridge log | SOLAS 74/78 V/19 |
| | <ul style="list-style-type: none">• Pre-arrival tests conducted• Casualties (navigation equipment and steering gear failures reported)• Steering gear drills• Emergency steering drills | STCW 95 I/14
33 CFR 164.25
33 CFR 164.53
46 CFR 35.07 |
| <input type="checkbox"/> | Information available to master (as required) | 46 CFR 42.15-1 |
| | <ul style="list-style-type: none">• Loading manual• Trim and stability book | 46 CFR 31.10-32
46 CFR 45.105(a) |
| <input type="checkbox"/> | Cargo and ballast system instruction manual | 33 CFR 157.23
46 CFR 153.806 |

Pollution Prevention Records:

- | | | |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <input type="checkbox"/> | Oil record book | MARPOL Ax. I/20
33 CFR 151.25 |
| | <ul style="list-style-type: none">• Each operation signed by person-in-charge• Each complete page signed by master• Book maintained for 3 years | |
| <input type="checkbox"/> | Shipboard oil pollution emergency plan | MARPOL Ax. I/26.1
33 CFR 151.26 |
| | <ul style="list-style-type: none">• Approved by Coast Guard / class society• Contact numbers correct• Immediate Actions List | |

Notes: _____

- | | | |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <input type="checkbox"/> | Vessel response plan | 33 CFR 155.1030
33 CFR 155.1035
33 CFR 155.1065
33 CFR 155.1070 |
| | <ul style="list-style-type: none"> • Approved by Coast Guard • Annual review by owner / operator | |
| <input type="checkbox"/> | Verify vessel has access to shore-based computerized damage stability programs | 33 CFR 155.240 |
| <input type="checkbox"/> | Oil transfer procedures | 33 CFR 155.720
MARPOL 73/78 I/20 |
| | <ul style="list-style-type: none"> • Posted • List of products carried by vessel • Description of transfer system including a line diagram of piping • Number of persons required on duty • Duties by title of each person • Means of communication • Procedures to top off tanks • Procedures to report oil discharges | |

Chemical Cargo Records:

- | | | |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <input type="radio"/> | Approved Procedures & Arrangement Manual | 46 CFR 153.490(a)
46 CFR 153.490(b) |
| <input type="radio"/> | Cargo record book | 46 CFR 153.490 |
| <input type="radio"/> | Cargo information cards | 46 CFR 153.907 |
| <input type="radio"/> | Cargo location plan | 46 CFR 153.907 |
| | <ul style="list-style-type: none"> • Cargo compatibility | 46 CFR Part 150 |
| <input type="radio"/> | Cargo piping plan | 46 CFR 153.910 |
| <input type="radio"/> | Shipping document | 46 CFR 153.907 |
| <input type="radio"/> | Waiver letters carried | 46 CFR 153.10 |
| <input type="radio"/> | Certificate of inhibition or stabilization | 46 CFR 153.912 |
| | <ul style="list-style-type: none"> • Date added to cargo • Length of time effective • Temperature limitations | |
| <input type="radio"/> | Current copy of 46 CFR Parts 35, 150, and 153 aboard | 46 CFR 153.905 |

Notes: _____

Section 3: Inspection Items for All Vessels

Navigation Equipment:

- | | | |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <input type="checkbox"/> | Navigation publications (as applicable) | 46 CFR 35.20-1
33 CFR 164.33
SOLAS 74/78 V/20 |
| | <ul style="list-style-type: none">• Current and corrected charts• U.S. Coast Pilot• Great Lakes Pilot• Sailing directions• Coast Guard Light List• Notice to mariners• Tide tables• Tidal current tables• International Rules of the Road• Inland Rules of the Road | |
| <input type="checkbox"/> | Operationally test radar(s) and ARPA | 46 CFR 32.15-30
33 CFR 164.35
33 CFR 164.37
33 CFR 164.38
SOLAS 74/78 V/12 |
| | <ul style="list-style-type: none">• 2 required if over 10,000 GT• Operate independently• ARPA acquires targets | |
| <input type="checkbox"/> | Compasses | 46 CFR 32.15-35
33 CFR 164.35
SOLAS 74/78 V/12 |
| | <ul style="list-style-type: none">• Illuminated gyrocompass with repeater at stand• Illuminated magnetic compass• Current deviation table | |
| <input type="checkbox"/> | Test electronic depth sounding device and recorder | 46 CFR 32.15-10
33 CFR 164.35
SOLAS 74/78 V/12 |
| | <ul style="list-style-type: none">• Accurate readout• Test all transducers• Continuous recorder (chart) | |
| <input type="checkbox"/> | Speed and distance indicator | 33 CFR 164.40
SOLAS 74/78 V/12 |
| <input type="checkbox"/> | Propulsion shaft tachometer | SOLAS 74/78 V/12 |

Notes: _____

<input type="checkbox"/> Radio equipment <ul style="list-style-type: none"> • Radios, RDF, Loran • Electronic position fixing device tested • GMDSS meets requirements for vessel operating area 	47 CFR Part 80 33 CFR 26.03 SOLAS 74/78 V/7 SOLAS 74/78 V/12 33 CFR 164.41 NVIC 9-93
<input type="checkbox"/> Internal communications and control system <ul style="list-style-type: none"> • EOT failure alarms • Telephones • Voice tubes • Emergency loudspeaker system • Public address system • Bell pulls • Pilothouse controls 	46 CFR 113.30 46 CFR 113.35 MSM Ch. 6.L.4 MSM Ch. 6.R.2.g 46 CFR 32.30-1 46 CFR 113.50
<input type="checkbox"/> Navigation lights and signals <ul style="list-style-type: none"> • Control panels • Running lights • Anchor lights • Special day and night signals • Distress signals and stowage • Flag signals, international code • Whistle, light, bells, gongs • Day and night signal devices • Certificate of Alternate Compliance 	72 COLREGS 46 CFR 111.75-17 MSM Ch. 6.L.5.c MSM Ch. 18.L.3 MSM Ch. 18.J 46 CFR 32.15-5 33 CFR 81.9
<input type="checkbox"/> Steering gear <ul style="list-style-type: none"> • Main gear tested (all stations) • Auxiliary gear tested (all stations) • Instructions and markings • Rudder angle indicator • Illumination • Alarms • Block diagram 	46 CFR 31.10-15 46 CFR 61.20-1 46 CFR 58.25 33 CFR 164.35 33 CFR 164.39 46 CFR 113.43 SOLAS 74/78 II-1/29 SOLAS 74/78 II-1/30 SOLAS 74/78 V/19-1 SOLAS 74/78 V/19-2 MSM Ch. 14.B NVIC 1-69 NVIC 1-81

Notes: _____

- | | | |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> | Maneuvering facts sheet with warning statements | 33 CFR 164.35 |
| <input type="checkbox"/> | EPIRB (406 MHz) <ul style="list-style-type: none"> • Float-free arrangement • Battery date current • Hydrostatic release | SOLAS 74/78 IV/7.1.6
46 CFR 199.510
MSM Ch. 18.K
NVIC 2-93 |
| <input type="checkbox"/> | GMDSS lifeboat radios (VHF) <ul style="list-style-type: none"> • 3 if over 500 GT • Operable condition | SOLAS 74/78 III/6.2
NVIC 9-93 |
| <input type="checkbox"/> | 9 GHz radar transponder (SART) <ul style="list-style-type: none"> • Vessels > 300 GT and < 500 require 1 • Vessels > 500 GT require 2 • Stowed so to be rapidly placed in survival craft, or stowed in survival craft | SOLAS 74/78 III/6.2
NVIC 9-93 |
| <input type="checkbox"/> | NAVTEX | SOLAS 74/78 IV/7.1.4 |

General Health and Safety:

- | | | |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <input type="checkbox"/> | Hospital and first aid equipment | 46 CFR 32.40-35
MSM Ch. 13.C |
| <input type="checkbox"/> | Operating room explosion-proof | 46 CFR 111.105-37 |
| <input type="checkbox"/> | Emergency lighting | 46 CFR 112.43
46 CFR 35.10-15
SOLAS 74/78 II-2/43.2 |
| <input type="checkbox"/> | Crew accommodations <ul style="list-style-type: none"> • Size • Lighting and wiring • Heating • Ventilation • Sanitation • Screens • Insulation • Fire retardant | 46 CFR 32.40
MSM Ch. 13.C

46 CFR 31.10-45 |

Notes: _____

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Galley <ul style="list-style-type: none"> • Equipment • Sanitation • Ventilation | MSM Ch. 6.P.8
MSM Ch. 13.C |
| <input type="checkbox"/> Means of escape from accommodation, machinery, and other spaces <ul style="list-style-type: none"> • Two required (some exceptions) • Dead end corridors • Absence of locks | 46 CFR 32.02-1
SOLAS 74/78 II-2/45 |
| <input type="checkbox"/> Notices and markings where required <ul style="list-style-type: none"> • Conspicuous • Legible • Proper size | 46 CFR 35.40 |
| <input type="checkbox"/> Gas freeing for repairs <ul style="list-style-type: none"> • Current Gas Chemist Certificate for areas as required • Date _____ • Chemist No. _____ | MSM Ch. 5.I |
| <input type="checkbox"/> Paint stowage <ul style="list-style-type: none"> • Closures • Fireproof / metal lined • Lighting / electrical • Fire protection • Markings | 46 CFR 32.85

SOLAS 74/78 II-2/18.7 |
| <input type="checkbox"/> Storerooms <ul style="list-style-type: none"> • Stowage • Fire hazards • Lighting and wiring | |
| <input type="checkbox"/> Oxygen sensor (oxygen analysis equip.) | SOLAS 74/78 VI/3.1 |
| <input type="checkbox"/> Combustible gas indicator | 46 CFR 35.30-15
NVIC 12-86 |
| <input type="checkbox"/> LPG systems, cylinders, tests | 46 CFR 61.15-10 |

Notes: _____

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <input type="checkbox"/> Pilot ladder and hoists in good condition <ul style="list-style-type: none"> • Illumination • Spreaders | 46 CFR 32.90-1
SOLAS 74/78 V/17
MSM Ch. 6.R.3.t
MSM Ch. 6.R.3.u |
| <input type="checkbox"/> Intrinsically safe portable radios | 46 CFR 35.30-30 |
| <input type="checkbox"/> Safe access to tanker bows
(vessels built prior to 1 JUL 98 not required to comply until 1 JUL 2001) | SOLAS 74/78 II-1/3-3 |

Structural Integrity:

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Hull structure (list inaccessible compartments or areas) <ul style="list-style-type: none"> • Decks • Shell • Bulkheads • Tank tops • Strength members • Approved plans on board | 46 CFR 31.10-15
ICLL 66 Reg. 1

46 CFR 31.10-22 |
| <input type="checkbox"/> Hull openings and closures <ul style="list-style-type: none"> • Side ports • Air ports and dead covers • Refuse chutes • Cargo tank hatches • Butterworth plates • Closing devices, gaskets • Light / water test | 46 CFR 42.13-20
46 CFR 42.15
MSM Ch. 6.F.5
ICLL 66 Regs. 12 - 23
NVIC 5-82
NVIC 10-82, Change 1 |
| <input type="checkbox"/> Deck openings and closures <ul style="list-style-type: none"> • Closing devices • Gaskets • Light / water test | MSM Ch. 6.F.5
ICLL 66 Regs. 12 - 20 |
| <input type="checkbox"/> Guards, ladders, rails, and gangways
(including accommodation ladders or pilot ladders) | 46 CFR 32.02-10
46 CFR 32.02-15
ICLL 66 Reg. 25 |

Notes: _____

- | | | |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| <input type="checkbox"/> | Catwalks, lifelines at hazardous places,
cable traveler | 46 CFR 32.02-10 |
| <input type="checkbox"/> | Elevators | 46 CFR 111.91 |
| <input type="checkbox"/> | Watertight doors in subdivision bulkhead
tested by: | 46 CFR 111.97
46 CFR 170.248
46 CFR 170.270
MSM Ch. 6.I.5.e |
| | <ul style="list-style-type: none"> • Local and remote control • Alarms • Markings | |
| <input type="checkbox"/> | Cargo gear examined (in absence of Cargo
Gear Certificate) | 46 CFR 31.10-16
46 CFR 31.37 |
| | <ul style="list-style-type: none"> • Records • Safe Working Load markings | |
| <input type="checkbox"/> | Exercise valves and controls | 46 CFR 38.10 |
| | <ul style="list-style-type: none"> • Bilge valves • Overboard discharge valves • Equalizing valves • Emergency shutoff valves • Scupper valves • Remote control • Reach rods | |
| <input type="checkbox"/> | Bilge wells, cofferdams, and suctions | 46 CFR 56.50-50 |
| <input type="checkbox"/> | Bulkhead penetrations | MSM Ch. 6.F.6 |
| <input type="checkbox"/> | Piping protection | MSM Vol. IV Ch. 3.G.2.b |
| | <ul style="list-style-type: none"> • Removable guards (where required) • Baggage spaces | |
| <input type="checkbox"/> | Hull marks | 46 CFR 67.120 |
| | <ul style="list-style-type: none"> • Name • Hailing port • Official number • Net tonnage | 46 CFR 32.05-10 |

Notes: _____

- | | | |
|--------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <input type="checkbox"/> | Draft marks | 46 CFR 32.05-1 |
| | <ul style="list-style-type: none"> • Legible • Properly sized • Properly spaced | |
| <input type="checkbox"/> | Load line marks | 46 CFR 31.25-1
46 CFR 42.07-5
46 CFR 42.13-20
ICLL 66 Regs. 4 - 9 |
| | <ul style="list-style-type: none"> • Conform to certificate • Legible | |

Ground Tackle:

- | | | |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <input type="checkbox"/> | Anchors | 46 CFR 32.15-15
ABS Rules |
| | <ul style="list-style-type: none"> • Tested • Windlass • Capstans <ul style="list-style-type: none"> – Automatic tensioning device | |
| <input type="checkbox"/> | Mooring, standing and running gear (other than gear covered by Cargo Gear Certificate) | 46 CFR 32.15-15
ABS Rules |
| <input type="checkbox"/> | Emergency towing arrangements
(vessels ≥ 20,000 DWT only) | SOLAS 74/78 II-2/3-4 |
| | <ul style="list-style-type: none"> • Approved by Administration | |

Cargo Operations:

- | | | |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | Warning notices and signals posted | 46 CFR 35.30-1
MSM Ch. 10.C.4 |
| <input type="checkbox"/> | Pumprooms / pumps | 46 CFR 32.60-20
MSM Ch. 10.C.4 |
| | <ul style="list-style-type: none"> • Pumps and controls • Relief valves • Cofferdams • Ventilation • Bulkhead penetrations • Bilges clean • Free of excessive vapors • Closures • Remote shutdown • Electrical controls outside compartment | 46 CFR 32.50-1
46 CFR 35.35-70
46 CFR 32.55-45
46 CFR 32.55-1
46 CFR 32.50-1
46 CFR 32.52-5

46 CFR 34.15-35
46 CFR 32.50-35
46 CFR 111.105 |

Notes: _____

- ☐ Cargo tanks
 - Trunks and hatches
 - Ullage openings
 - Liquid level gauges
 - 46 CFR 32.20-20
 - 46 CFR 39.20-3
 - Open
 - Restricted
 - Closed
 - Liquid level devices
 - 46 CFR 32.22T
 - Deck penetrations
 - 46 CFR 32.50-15
 - Heating coils
 - Explosion-proof electrical fittings
 - 46 CFR 111.105
 - Overfill device
 - 33 CFR 155.840
- ☐ Cargo piping
 - 46 CFR 32.50-15
 - 33 CFR 156.170
 - 46 CFR 56.30
 - 46 CFR 56.35
 - 46 CFR 56.20
 - Expansion joints
 - Controls
 - Supports
 - Hoses
 - Valves
- ☐ Hoses
 - 46 CFR 32.50-30
 - 33 CFR 155.800
 - 33 CFR 156.170
 - 33 CFR 154.500
 - External examination
 - Hydrostatic test
 - Markings
- ☐ Cargo oil containment
 - 33 CFR 155.310
 - SOLAS 74/78 II-2/59
 - Size
 - Drains
 - Scupper closures

Notes: _____

- | | | |
|--------------------------|------------------------------------------------------------------|-----------------------------------|
| <input type="checkbox"/> | Cargo tank venting | 46 CFR 32.55-20
MSM Ch. 10.C.4 |
| | Common header system | |
| | • P/V valves | |
| | • Flame arrestors | 46 CFR 32.20-5 |
| | • Flush and drain connections | 46 CFR 32.20-10 |
| | • Inert gas controls | 46 CFR 151.15-5 |
| | • Piping | |
| | Independent PV valves | 46 CFR 32.55-20 |
| | • Flame screen | 46 CFR 32.20-10 |
| | Independent goosenecks | 46 CFR 32.55-25 |
| | • Flame screen | 46 CFR 32.20-10 |
| | • Closure device | |
| <input type="checkbox"/> | Explosion-proof fixtures | 46 CFR 111.105 |
| <input type="checkbox"/> | Independent tanks | 46 CFR 32.60-30
46 CFR 153.251 |
| | • External examination _____ | |
| | • Date of internal examination _____ | |
| | • Date of hydrostatic test _____ | |
| | • Saddles; foundation and stowage | |
| | • Piping and valves | |
| | • Relief valves | |
| | • Securing devices | |
| | • Cargo hose | |
| | • Electrical grounding | |
| | • Authorized cargo | |
| <input type="checkbox"/> | Weather decks | 46 CFR 111.105 |
| | • Sources of vapor ignition | |
| | • Doors, ports, scuttles,, gaskets, and closures
satisfactory | 46 CFR 32.56-21 |
| | • Portable window air conditioners and fans | |
| | • Ventilation systems | |
| <input type="checkbox"/> | Air compressor intakes | 46 CFR 32.35-15 |
| | • Prohibited locations | |

Notes: _____

Inert Gas Systems:

- ☐ Purity of nitrogen _____ 46 CFR 32.53
SOLAS 74/78 II-2/62
MSM Ch. 15
- ☐ % concentration of nitrogen in
vapor space _____
- ☐ % oxygen vapor _____
- ☐ Provisions for hold space and tank pad
- ☐ Sampling / testing of gas pad
- ☐ Gas generator or spare gas on board 46 CFR 32.53-20
- ☐ General
 - Supply capacity adequate
 - Positive pressure 46 CFR 32.50-30
 - Independent blowers 46 CFR 32.53-45
 - Oxygen detector and recorder 46 CFR 32.53-60
 - Pressure indicator and recorder
 - Portable detecting instruments
 - Alarms and controls 46 CFR 32.53-70
 - High oxygen alarm (> 8%)
 - Low pressure alarm (< 100mm)
 - Loss of water supply to deck water seal alarm
and shutdown
 - High inert gas temperature (> 150°F) alarm and
shutdown
 - Loss of water supply to scrubber alarm and
shutdown
 - Automatic shutdown valve 46 CFR 32.53-75
 - Instruction manual 46 CFR 32.53-85

Vapor Control Systems:

- ☐ Piping 46 CFR 39.20-1
 - Drain lines
 - Electrically bonded to hull
 - Flange stud
 - Vapor connection painted red / yellow / red and
labeled vapor in 2-inch black letters

Notes: _____

- | | | |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <input type="checkbox"/> | Closed gauging arrangement | 46 CFR 39.20-3 |
| <input type="checkbox"/> | Liquid overfill protection | 46 CFR 39.20-9 |
| | High-level and tank overfill alarms | |
| | Alarm with automatic shutdown system | |
| | Spill valve | |
| | Rupture disk | |
| | <ul style="list-style-type: none"> • Intrinsically safe • Audible and visual alarms • Operational test | |

Lifesaving Equipment:

NOTE: Exemptions and alternatives for vessels not subject to SOLAS can be found in 46 CFR 199.600.

- | | | |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | General alarms | 46 CFR 32.25
46 CFR 113.25
SOLAS 74/78 III/6.4 |
| | <ul style="list-style-type: none"> • Controls • Batteries and fuses • Tested • Markings • Bell locations audible | 46 CFR 35.40 |
| <input type="checkbox"/> | Type of lifeboat | |
| | Davit launched | |
| | Free fall | |
| <input type="checkbox"/> | Lifeboats stripped, cleaned and inspected | 46 CFR 199.190(f) |
| | <ul style="list-style-type: none"> • Date of annual servicing _____ | |
| <input type="checkbox"/> | Lifeboats and work boats | 46 CFR 199.201
46 CFR 199.202
46 CFR 199.261
46 CFR 199.262
SOLAS 74/78 III/19.2
SOLAS 74/78 III/26
MSM Ch. 6.R.3.e |
| | <ul style="list-style-type: none"> • Hull and fittings • Tanks and fittings • Cradles • Gripes • Compressed air cylinders • Markings | 46 CFR 199.176 |

Notes: _____

☐ Lifeboat equipment and stowage
(use table below to determine required equipment)

46 CFR 199.175
SOLAS 74/78 III/41

Item Number	Item	International Voyage		Short International Voyage	
		Lifeboat	Rescue Boat	Lifeboat	Rescue Boat
1	Bailer ¹	1	1	1	1
2	Bilge pump ²	1		1	
3	Boathook	2	1	2	1
4	Bucket ³	2	1	2	1
5	Can opener	3		3	
6	Compass	1	1	1	1
7	Dipper	1		1	
8	Drinking cup	1		1	
9	Fire extinguisher	1	1	1	1
10	First aid kit	1	1	1	1
11	Fishing kit	1			
12	Flashlight	1	1	1	1
13	Hatchet	2		2	
14	Heaving line	2	2	2	2
15	Jackknife	1		1	
16	Knife ^{1,4}		1		1
17	Ladder	1	1	1	1
18	Mirror, signalling	1		1	
19	Oars, units ^{5,6}	1	1	1	1
20	Painter	2	1	2	1
21	Provisions (units/persons)	1			
22	Pump ⁷		1		1
23	Radar reflector	1	1	1	1
24	Rainwater collection device	1		1	
25	Repair kit ⁷		1		1
26	Sea anchor	1	1	1	1
27	Searchlight	1	1	1	1
28	Seasickness kit (units/person)	1		1	

Item Number	Item	International Voyage		Short International Voyage	
		Lifeboat	Rescue Boat	Lifeboat	Rescue Boat
29	Signal, smoke	2		2	
30	Signal, hand flare	6		6	
31	Signal, parachute flare	4		4	
32	Skates and fenders ⁸	1	1	1	1
33	Sponge ⁷		2		2
34	Survival instructions	1		1	
35	Table of lifesaving signals	1		1	
36	Thermal protective aids ⁹	10%	10%	10%	10%
37	Tool kit	1		1	
38	Tow line ¹⁰	1	1	1	1
39	Water (liters/person)	3		3	
40	Whistle	1	1	1	1

Footnotes:

- 1 Each rigid liferaft equipped for 13 persons or more must carry two of these items.
- 2 Not required for boats of self-bailing design.
- 3 Not required for inflated or rigid-inflated rescue boats.
- 4 A hatchet counts towards this requirement in rigid rescue boats.
- 5 Oars are not required on a free-fall lifeboat; a unit of oars means the number of oars specified by the boat manufacturer.
- 6 Rescue boats may substitute buoyant paddles for oars, as specified by the manufacturer.
- 7 Not required for a rigid rescue boat.
- 8 Required if specified by the boat manufacturer.
- 9 Sufficient thermal protective aids are required for at least 10% of the persons the survival craft is equipped to carry, but not less than two.
- 10 Required only if the lifeboat is also the rescue boat.

Notes: _____

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> Disengaging apparatus examined or tested and marked as required | 46 CFR 199.45(b)
SOLAS 74/78 III/41
MSM Ch. 6.R.3.a |
| <ul style="list-style-type: none"> • Universal joints • Safety latches • Hooks • Locking knuckles • Frame | |
| <input type="checkbox"/> Motor lifeboats* | 46 CFR 199.45(b)
SOLAS 74/78 III/41
MSM Ch. 6.R.3.e |
| <ul style="list-style-type: none"> • Engine operating test • Cooling water pump • Ahead and astern test • Fuel tanks • Searchlight test (passenger vessels) • Annual fuel changed • Extinguishers serviced | |
| <input type="checkbox"/> Hand-propelled lifeboats* | 46 CFR 199.45(b) |
| <ul style="list-style-type: none"> • Flemming gear • Transmission oil | |
| <input type="checkbox"/> Radio installation for lifeboats complies with FCC and/or international convention (where required)* | 46 CFR 199.60
SOLAS 74/78 III/6
MSM Ch. 6.R.3.I |
| <ul style="list-style-type: none"> • Portable • Fixed | |
| <input type="checkbox"/> Lifeboat operational test* | 46 CFR 199.45(b)
SOLAS 74/78 III/19
MSM Ch. 6.R.3.a |
| <input type="checkbox"/> Davits | 46 CFR 160.032
SOLAS 74/78 III/48
MSM Ch. 6.R.3.a |
| <ul style="list-style-type: none"> • Foundations • Moving parts • Fittings • Fairleads, cleats, or cruciform bits | |
| <input type="checkbox"/> Falls (date last renewed or end-for-ended) | 46 CFR 199.190(j)
SOLAS 74/78 III/48
MSM Ch. 6.R.3.a(1) |

* Items tested in conjunction with Abandon Ship Drill.

Notes: _____

- ☐ Lifeboat winches
 - Brakes
 - Controls
 - Cranks
 - Covers
 - Limit switches and electrical controls

46 CFR 199.199(i)
SOLAS 74/78 III/19
MSM Ch. 6.R.3.a

- ☐ Embarkation aids
 - Ladders
 - Access
 - Spans and lifelines
 - Illumination
 - Frapping and tricing lines

46 CFR 199.190(f)
SOLAS 74/78 III/11
MSM Ch. 6.R.3.t

- ☐ Lifeboat weight test
 - Light load
 - Full load: date _____

46 CFR 199.45(b)
SOLAS 74/78 III/19
MSM Ch. 6.R.3.a

- ☐ Liferafts
 - Launching instructions posted
 - Equipment and stowage
 - Annual service dates

46 CFR 199.190
SOLAS 74/78 III/19
SOLAS 74/78 III/26
MSM Ch. 6.R.3.f

46 CFR 199.190(g)

- Hydro release service dates

46 CFR 199.190(h)
MSM Ch. 6.R.3.h

- Weak link
- Float free
- Illumination
- Markings
- Capacities
- Launching devices tested

MSM Ch. 6.R.3.d

Notes: _____

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Lifefloats and buoyant apparatus <ul style="list-style-type: none"> • Equipment • Stowage • Markings | 46 CFR 199.640 |
| <input type="checkbox"/> Line-throwing apparatus <ul style="list-style-type: none"> • Equipment • Required drills held • Magazine • Type _____ | 46 CFR 199.170
SOLAS 74/78 III/17
MSM Ch. 6.R.3.s
NVIC 8-69 |
| <input type="checkbox"/> Lifebuoys <ul style="list-style-type: none"> • Lights • Lines • Smoke signals • Stowage • Markings | 46 CFR 199.70(a)
SOLAS 74/78 III/7
SOLAS 74/78 III/27
MSM Ch. 6.R.3.i |
| <input type="checkbox"/> Lifejackets <p>Adult _____ Children _____</p> <ul style="list-style-type: none"> • Retro-reflective tape • Lights • Whistles • Work vests • Stamped passed • Number of lifejackets rejected by inspector _____ | 46 CFR 199.70(b)
SOLAS 74/78 III/7.2.2
MSM Ch. 6.R.3.m
NVIC 2-63
MSM Ch. 6.R.3.q |
| <input type="checkbox"/> Lifejacket stowage <ul style="list-style-type: none"> • Required notices and markings • Stowage lockers • Wearing instructions • Location instructions (passenger vessels) | 46 CFR 199.70(b)
SOLAS 74/78 III/7.2
46 CFR 199.80(c)
46 CFR 199.70(b)(2)
46 CFR 199.80(c)
46 CFR 199.217 |
| <input type="checkbox"/> Work vests <ul style="list-style-type: none"> • Approved type • Stowage | 46 CFR 35.03
46 CFR 35.03-5
46 CFR 35.03-15 |
| <input type="checkbox"/> Stateroom notices posted | 46 CFR 199.80(c) |

Notes: _____

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <input type="checkbox"/> Immersion suits <ul style="list-style-type: none"> • Condition • Retro-reflective material | 46 CFR 199.273
SOLAS 74/78 III/27.3
SOLAS 74/78 III/30.2.7
MSM Ch. 6.R.3.n |
| <input type="checkbox"/> Placard of lifesaving signals | 46 CFR 35.12
SOLAS 74/78 V/16 |
| <input type="checkbox"/> Pilot ladder and hoists in good condition | 46 CFR 32.90-1
SOLAS 74/78 V/17
MSM Ch. 6.R.3.t
MSM Ch. 6.R.3.u |
| <input type="checkbox"/> Station bill posted | 46 CFR 35.10-1
46 CFR 199.80
SOLAS 74/78 III/8.3 |
| <input type="checkbox"/> Distress signals <ul style="list-style-type: none"> • 12 rocket parachute flares | 46 CFR 199.60
SOLAS 74/78 III/6.3 |

Fire Protection Equipment:

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Fire control plan <ul style="list-style-type: none"> • Permanently posted • Copy permanently stored in weathertight container outside deckhouse | 46 CFR 35.10-3
SOLAS 74/78 II-2/20 |
| <input type="checkbox"/> Portable extinguishers <ul style="list-style-type: none"> • Annually serviced • Bottles hydrostatically tested (every 5 years) • Markings (weight and hydrostatic test date) • Spare charges, spare extinguishers | 46 CFR 34.05-10
46 CFR 34.50
46 CFR 31.10-18(a)
SOLAS 74/78 II-2/6
SOLAS 74/78 II-2/21
MSM Ch. 18.1.3
NVIC 7-70
NVIC 13-86 |
| <input type="checkbox"/> Semiportable extinguishers <ul style="list-style-type: none"> • Annually serviced • Bottles hydrostatically tested (every 12 years) • Controls, instructions, markings • Hose and diffuser • Flexible loops tested or replaced (same as bottle) | 46 CFR 34.05-10
46 CFR 34.50
46 CFR 31.10-18(a)
SOLAS 74/78 II-2/6
SOLAS 74/78 II-2/21
MSM Ch. 18.1.4
NVIC 13-86 |

Notes: _____

- ☐ Fixed fire extinguishing systems
- Controls, instructions, marking 46 CFR 34.05-5
 - Alarms tested 46 CFR 34.15
 - Piping 46 CFR 34.17
 - Heads, distribution SOLAS 74/78 II-2/21
 - Bottles weighed annually MSM Ch. 18.I
 - Bottles hydrostatically tested (every 12 years) NVIC 6-70
 - Flexible loops tested or replaced (10% per year) NVIC 6-72, Change 1
 - Deck foam system NVIC 8-73
 - Sea suction, strainers 46 CFR 31.10-18(a)
 - Fixed system tested 46 CFR 34.20
 - Storage space / door SOLAS 74/78 II-2/61

Type of system: (circle appropriate type)			
Low Pressure CO ₂	High Pressure CO ₂	Halon	Foam

- ☐ Foam tanks
- Markings 46 CFR 34.17
 - Test 46 CFR 35.40-10
 - Analysis SOLAS 74/78 II-2/61
 - Refilled NVIC 6-72
 - Polar / non-polar foam NVIC 11-82
 - Cargo compatible

- ☐ Fire main system
- Pumps 46 CFR 34.05
 - Piping 46 CFR 31.10-18(g)
 - Cut-off valves 46 CFR 34.10-5
 - Drains 46 CFR 31.10-18(f)
 - 46 CFR 34.10-15(c)
 - NVIC 6-72, Change 1
 - SOLAS 74/78 II-2/4
 - SOLAS 74/78 II-2/21
 - MSM Ch. 18.I.9
 - MSM Ch. 19.I.7

Notes: _____

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Fire stations <ul style="list-style-type: none"> • Hydrants (2 effective streams) • Nozzles and spanners • Fog applicators (<6 feet in length, in engineroom) • Hose <ul style="list-style-type: none"> – UL approved – Correct length • Markings • Equipment compatible | 46 CFR 34.10-10
NVIC 6-72, Change 1
SOLAS 74/78 II-2/4
SOLAS 74/78 II-2/21
MSM Ch. 18.I.9
MSM Ch. 19.I.7
46 CFR 34.25-20
46 CFR 32.05-5 |
| <input type="checkbox"/> Total length of all hose tested _____ <ul style="list-style-type: none"> • Hydrostatically tested to at least 100 psi • Proper threads • Approved hose | 46 CFR 34.10-10
MSM Ch. 18.I.6
46 CFR 31.10-18(g) |
| <input type="checkbox"/> Structural fire protection <ul style="list-style-type: none"> • Bulkheads • Insulation | 46 CFR 32.56
46 CFR 32.57
46 CFR 34.05
46 CFR 34.10
46 CFR 34.15
46 CFR 35.10-3
SOLAS 74/78 II-2/42 |
| <input type="checkbox"/> Fire doors and controls tested <ul style="list-style-type: none"> • Machinery space and stair towers • Not tied or blocked open • Installed closure devices working | 46 CFR 32.56-35
46 CFR 111.103-1
SOLAS 74/78 II-2/46
SOLAS 74/78 II-2/47 |
| <input type="checkbox"/> Remote controls to power ventilation marked and tested <ul style="list-style-type: none"> | 46 CFR 111.103-1 |
| <input type="checkbox"/> Closures for spaces protected by fixed smothering systems <ul style="list-style-type: none"> | |
| <input type="checkbox"/> International shore connection <ul style="list-style-type: none"> | 46 CFR 34.10-15(d)
SOLAS 74/78 II-2/19 |
| <input type="checkbox"/> Fire axe <ul style="list-style-type: none"> • Markings | 46 CFR 34.60
46 CFR 32.05-5 |

Notes: _____

- | | | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <input type="checkbox"/> | Firemen's outfits | 46 CFR 35.30-20
SOLAS 74/78 II-2/17.3
NVIC 2-63
NVIC 4-68 |
| | <ul style="list-style-type: none"> • Two lockers • Four outfits • Protective clothing • Helmet, boots, and gloves • Lamp • Axe • Self-contained breathing apparatus and lifeline <ul style="list-style-type: none"> – Spare charges | |

- | | | |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <input type="radio"/> | Water spray system | 46 CFR 34.25 |
| | <ul style="list-style-type: none"> • Coverage (all tank domes, cargo manifolds, deck tanks) • Operation • Local / remote control • Manual or automatic • Tested • Can operate simultaneously with fire main systems • Controls marked • Material condition | |

Pollution Prevention:

NOTE: Guidance for inspecting pollution prevention items is detailed in MSM Volume II, Chapter 31.

- | | | |
|--------------------------|---------------------------------------------------------------------------------------|----------------------------------|
| <input type="checkbox"/> | Pollution placard posted | 33 CFR 155.450 |
| <input type="checkbox"/> | MARPOL V placard posted | 33 CFR 151.59 |
| <input type="checkbox"/> | Person-in-charge designation | 33 CFR 155.700
33 CFR 155.820 |
| <input type="checkbox"/> | Fuel oil containment | 33 CFR 155.320 |
| | <ul style="list-style-type: none"> • Portable • Fixed | |
| <input type="checkbox"/> | Fuel tank vents | 46 CFR 56.50-85 |
| | <ul style="list-style-type: none"> • Flame screens • Closures | |

Notes: _____

- | | | |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <input type="checkbox"/> | Oily waste retention | 33 CFR 157.17
MSM Ch. 31.D.7 |
| | <ul style="list-style-type: none"> • Bilge • Tank | |
| <input type="checkbox"/> | Ballast discharge | 33 CFR 155.330
33 CFR 155.350
33 CFR 155.360
33 CFR 155.370
MSM 31.D.10 |
| | <ul style="list-style-type: none"> • Acceptable processing equipment | |
| <input type="checkbox"/> | Oily bilge discharge | 33 CFR 155.380 |
| | <ul style="list-style-type: none"> • Piping system • Stop valve • Standard discharge connection • Pump stop | 33 CFR 155.430 |
| <input type="checkbox"/> | Prohibited oil spaces | 33 CFR 155.470 |
| <input type="checkbox"/> | Emergency shutdown | 33 CFR 155.780 |
| <input type="checkbox"/> | Discharge removal equipment | 33 CFR 155.205
33 CFR 155.210 |
| | <ul style="list-style-type: none"> • Sorbents • Non-sparking tools • Containers • Emulsifiers • Protective clothing • Scupper plugs • Non-sparking portable pump | |
| <input type="checkbox"/> | Deck lighting | 33 CFR 155.790 |
| <input type="checkbox"/> | Garbage | 33 CFR 151.63
MARPOL Ax. V/3 |
| | <ul style="list-style-type: none"> • Shipboard garbage properly disposed | |
| <input type="checkbox"/> | Discharge from machinery space bilges | 33 CFR 151.10 |
| | <ul style="list-style-type: none"> • Approved monitoring and control system • Approved oil water separating equipment | |

Notes: _____

- | | | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------|
| <input type="checkbox"/> | MARPOL Annex I survey | 33 CFR 151.09 |
| | <ul style="list-style-type: none"> • Discharge of cargo residue • Approved monitoring and control system | |
| <input type="radio"/> | MARPOL Annex II survey | 33 CFR 151.30 |
| | <ul style="list-style-type: none"> • Discharge of cargo residue • Approved monitoring and control system | |

Marine Sanitation Devices:

NOTE: Guidance for inspecting marine sanitation devices is detailed in MSM Volume II, Chapter 18.K.

- | | | |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <input type="checkbox"/> | Marine sanitation device | 33 CFR 159.55
MSM Ch. 31.F |
| | Type I | |
| | Type II | |
| | Type III | |
| <input type="checkbox"/> | Certified for inspected vessels | MSM Ch. 31.F.4 |
| <input type="checkbox"/> | Capacity satisfactory | MSM Ch. 18.K.7.d |
| <input type="checkbox"/> | Installation | 33 CFR 159.57
MSM Vol. IV Ch. 3.K.1 |
| | <ul style="list-style-type: none"> • Operation • Ventilation • Wiring and piping • Maintenance • Placard posted • Safety • Accessibility to parts requiring routine servicing • Manufacturer's instructions available | 33 CFR 159.59 |

Notes: _____

Section 4: Additional Inspection Items for Vessels Carrying Dangerous Chemicals in Bulk

Emergency Equipment:

○ Safety gear lockers

- Proper locations (minimum of 2)
- Labeled "Safety Equipment"
- Proper type and amount of safety equipment 46 CFR 153.214

Equipment	Amount Required per Safety Gear Locker Location	
	Primary Shutdown Station	Secondary Shutdown Station
2 stretchers with lifting equipment	1	1
30-minute SCBA	3	2
SCBA refill tanks	11	6
First aid equipment	2	1
Overalls or long apron	2	1
Boots	2	1
Long-sleeved gloves	2	1
Goggles	2	1
Steel-cored lifeline with harness	2	1
Explosion-proof flashlight	2	1

○ Self-contained breathing apparatus

- Material condition
- Operation

○ Decontamination showers and eye wash on deck 46 CFR 153.216

- Operation
- Suitably marked

Notes: _____

- Crew respiratory / eye protection 46 CFR 153.527
 - EEBD > 15-minute duration

Cargo Operations:

- Warning signs and signals
 - Red signal visible, light / flag 46 CFR 153.953
 - Warning signs at gangway 46 CFR 153.955
 - “Warning”
 - “Dangerous Cargo”
 - “No Smoking”
 - “No Open Lights”
- Portable cargo hose 46 CFR 153.940
 - Marked or stenciled
 - Date
 - Tested
 - Test pressure
 - MAWP
 - Service temperature
 - Maximum
 - Minimum
 - Test pressure
- Cargo discharge methods
 - Pumproom
 - Deepwell pump
 - Submerged pump
 - Gas pressurization 46 CFR 153.964
 - Liquid displacement 46 CFR 153.966

Cargo Tanks:

- Trunks and hatches, ullage openings 46 CFR 153.256
 - Condition
 - Gaskets
 - Closure
 - Butterworth openings
 - Closed
 - Fitted with flame screens

Notes: _____

- Special tank linings 46 CFR 153.266
- Heating system 46 CFR 153.430
 - If toxic cargoes only, system must be separate from vessel's heating system and contamination detection must be available
- Cooling system 46 CFR 153.432
- Cargo high pressure and temperature alarms 46 CFR 153.438
 - Audible
 - Visual
 - Location

Cargo Piping:

- Material condition
 - Annual hydrostatic test 33 CFR 156.170
 - Properly marked 46 CFR 15.294
- Valves 46 CFR 153.283
 - Tank valves
 - Hose connection points
- Agreement with plans 46 CFR 153.910
 - New piping
 - No unauthorized modification
- Prohibited materials 46 CFR 153.236
 - Aluminum or aluminum alloys
 - Copper or copper alloys
 - Zinc, galvanized steel, or alloys having > 10% zinc
 - Magnesium
 - Lead
 - Silver or silver alloys
 - Mercury

Notes: _____

Quick-closing Valves:

NOTE: Requirements for quick-closing valves are detailed in 46 CFR 153.284.

- Operation
 - Tested from at least 2 remote locations
 - Closure time < 30 seconds
 - All valves fully closed
 - Pumps automatically shut off
- Capable of local manual operation
 - Reasonably short time
 - Under emergency conditions
- Fusible elements
 - Located at tank domes and loading manifold
 - No paint on face of plug

Venting:

- Type of vent system
 - Open, gooseneck
 - P/V 46 CFR 153.355
 - High velocity 46 CFR 153.353
- Vent piping
 - No stop valves allowed
 - Bypass capability 46 CFR 153.361
 - Material condition
 - Segregation
 - Independent
 - Common
 - Portable
 - Agreement with plans
 - Suitable connections for flushing and draining 46 CFR 153.362
 - Coated or lined same as tank
 - Prohibited materials 46 CFR 153.236

Notes: _____

- Vent outlets
 - Height above highest cargo area working level
 - Directed vertically upward
 - Flame arrestor (where required)
 - Weather hood
 - Flame screens
 - Located away from air intakes and openings to accommodation spaces
- P/V valves
 - Material condition
 - Operation
 - Flame screens

46 CFR 153.350
46 CFR 153.351
46 CFR 153.352

46 CFR 153.368

46 CFR 153.463

Gauging:

- Type of gauging system
 - Open
 - Restricted
 - Closed
- High-level alarms
 - Operation
 - Audible and visual signals
 - Last tested and inspected _____
 - Markings
- Overfill controls
 - Set points
- Cargo samples
 - Designated stowage locations
 - Ventilation

46 CFR 153.400

46 CFR 153.409

46 CFR 153.408

46 CFR 153.935(a)

Notes: _____

Pumprooms:

- Ventilation
***WARNING:** Pumproom must be adequately ventilated prior to personnel entry.*
 - Forced exhaust 46 CFR 153.310
 - Termination of external openings 46 CFR 153.312
 - Intake below and above floor plates
 - Operable from outside pumproom
 - Adequate volume
 - Material condition of ducting
- Pumps
 - Pressure gauges outside pumproom and operable 46 CFR 153.333
 - Type of drive _____
 - Material condition
- Shaft seals (where motor rooms are installed)
 - Leakage
 - Vapor-tight
 - Adequate supply of oil (where required)
- General
 - Hoisting arrangement 46 CFR 153.332
 - Bilge pumping system 46 CFR 153.334
 - Operational
 - Remote controls
 - High-level alarm

Electrical Systems:

NOTE: Requirements for inspecting the following electrical items are detailed in Subchapter J as per 46 CFR 153.466.

- Explosion-proof lighting fixtures 46 CFR 111.105
 - Tight globe
 - Heavy construction
 - Explosion-proof seals around cables

Notes: _____

- Cable
 - Condition
- Electrical fixtures on deck NVIC 2-89
 - Explosion-proof or intrinsically safe
 - No frayed or exposed wires
 - Material condition

Gas Detection:

- Portable gas detectors
 - Number _____
 - Type
 - Flammable gas detectors 46 CFR 153.465
 - Calibrated
 - Tested
 - Toxic gas detectors 46 CFR 153.526
 - Capable of measuring all toxic cargoes authorized to be carried
 - Calibrated
- Fixed gas detectors 46 CFR 153.526
 - Calibration
 - Crew knowledgeable in operation
 - Span gas available
 - Zeroing
 - Calibration curves available for all cargoes carried
 - Tested

Notes: _____

Section 5: Drills

☐ **Fire Drill:**

Initial notifications	Familiarity with duties	Space isolation
General alarms / signals	Familiarity with equipment	Smoke control
Crew response	Fire pumps started	Communications w/ bridge
Properly dressed / equipped	Two jets of water	
Language understood by crew	Fire doors and dampers	

(SOLAS 74/78 III/18.3; MSM Vol. II/22.C.7.i; NVIC 6-91)

Location: _____ Time on Scene: _____

Notes: _____

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on its right side, suggesting it's resting on a surface.

General alarms / signals

Familiarity with duties

Boat release

Muster lists

Provide equipment

Boat operation

Muster of crew

Familiarity with equipment

Egress procedures

Crew response

Lower lifeboat

Davit-launched liferaft drill

Language understood by crew

Brake operation

Communication w/ bridge

Lifejackets

Engine start

Lighting

(SOLAS 74/78 III/18.3; MSM Vol. II/22.C.7.h)

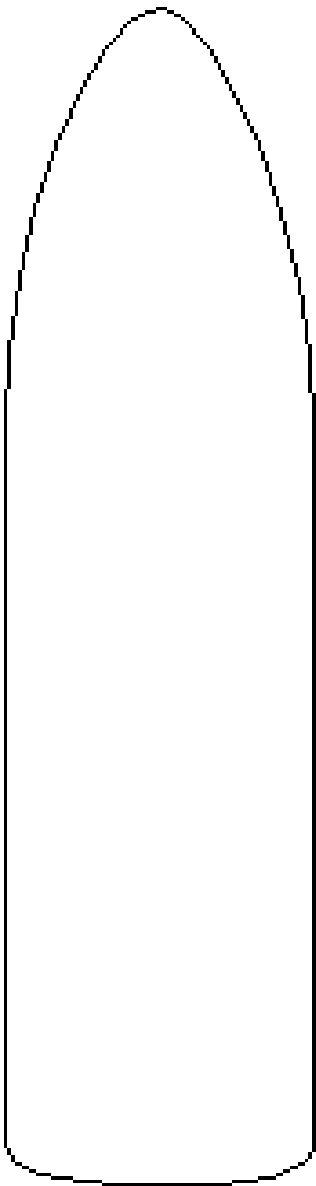
Location: _____

Time to Water: _____

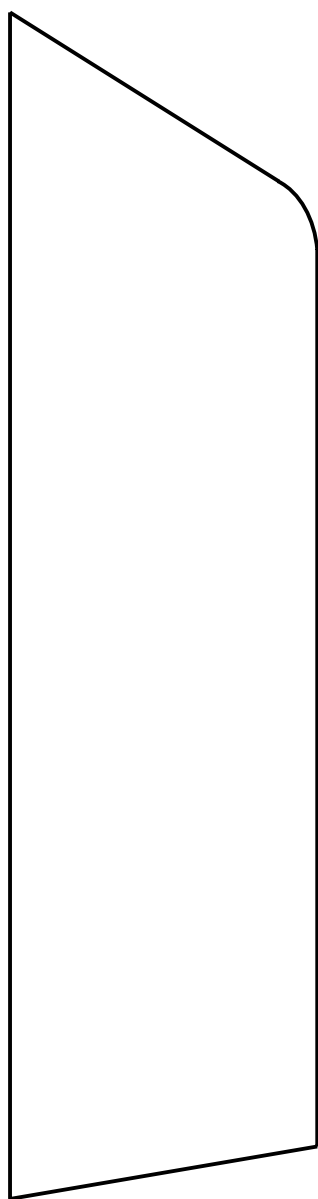
Notes: _____

Section 6: Appendices

Vessel Layout:



- Double hull / bottom / sides
- Ballast tanks (SBT/CBT)
- Chemical tank type: I II III
- Tank arrangement
- Deckhouse location
- External / internal framing
- Layout of pumps – type



Cargoes Requiring a Response Plan:

Type of Cargo	Name of Cargo		
Asphalt Solution	<ul style="list-style-type: none"> • Blending stocks 	<ul style="list-style-type: none"> • Roofers stock 	<ul style="list-style-type: none"> • Straight run residue
Animal Oils	<ul style="list-style-type: none"> • Tallow • Lard • Stearic acid 	<ul style="list-style-type: none"> • Olive acid • Sperm oil 	<ul style="list-style-type: none"> • Fish oil • Fish liver
Distillates	<ul style="list-style-type: none"> • Flashed feed stocks 	<ul style="list-style-type: none"> • Straight run 	
Easenal Oils	<ul style="list-style-type: none"> • Pinene 	<ul style="list-style-type: none"> • Turpentine 	<ul style="list-style-type: none"> • Dipentine
Edible Oils	<ul style="list-style-type: none"> • Corn • Coconut 	<ul style="list-style-type: none"> • Soybean • Olive 	<ul style="list-style-type: none"> • Cotton seed
Gasolines	<ul style="list-style-type: none"> • Automotive • Aviation • Casinghead 	<ul style="list-style-type: none"> • Polymer • Straight run • Gas, oil cracked 	<ul style="list-style-type: none"> • Akylates • Reformates
Naptha	<ul style="list-style-type: none"> • Aromatic • Cracking fraction • Heavy 	<ul style="list-style-type: none"> • Paraffinic • Petroleum • Solvent 	<ul style="list-style-type: none"> • Stoddard solvent • Varnish makers
Oils	<ul style="list-style-type: none"> • Clarified oil • Crude oil • Fuel oils [# 1 (Kerosene), # 2, # 2D, # 4, # 5, # 6] • Residual fuel oil • Transformer oil • Lube oil and blending stock 	<ul style="list-style-type: none"> • Aromatic oil (excluding vegetable oil) • Mineral oil • Motor oil • Penetrating oil • Spindle oil • Turbine oil • Octene 	<ul style="list-style-type: none"> • Olefin • Animal • Range • Residual • Resin • Road • White (mineral)

Prohibited Chemical Cargoes:

The following cargoes have been determined to be too hazardous to be carried in U.S. waters:

1. Acrolein
2. Chlorine (on self-propelled vessels)
3. Ethylenimine
4. Hydrofluoric Acid
5. Hydrogen
6. Hydrogen Chloride
7. Hydrogen Fluoride
8. Methylcyclopentadienyl Manganese Tricarbonyl
9. Nitric Acid (in concentrations > 70%)
10. Nitrogen Tetroxide
11. Oxygen
12. Phosphorus Trichloride
13. (Beta) Propiolactone

Recommended US Vessel Deficiency Procedures:

Step	Action								
1	Identify deficiency.								
2	Inform vessel representative.								
3	Record on the <i>Deficiency Summary Worksheet</i> (next page).								
4	If deficiency is corrected prior to end of inspection, go to Step 7.								
5	<p>If deficiency is unable to be corrected prior to end of inspection, issue CG-835 in accordance with table below.</p> <table border="1"> <thead> <tr> <th>IF deficiency:</th><th>THEN issue CG-835:</th></tr> </thead> <tbody> <tr> <td> <p>Does NOT immediately impact crew/passenger safety, hull seaworthiness, or the environment, e.g.,</p> <ul style="list-style-type: none"> • Missing placards • Non-metallic expansion joints more than 10 years in service </td><td> <p>That provides a specific time for correcting deficiency, e.g.,</p> <ul style="list-style-type: none"> • "X" number of days • At next drydock </td></tr> <tr> <td> <p>Allows vessel operations to be MODIFIED to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> • Expired international certificates • Automation defect </td><td> <p>That restricts operation of vessel to meet current vessel conditions, e.g.,</p> <ul style="list-style-type: none"> • Reduced route • Increased crew </td></tr> <tr> <td> <p>DOES immediately impact crew/passenger safety, hull seaworthiness, or the environment, and cannot be modified to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> • Missing or defective firefighting equipment • Structural defect or damage </td><td> <p>That requires the deficiency to be corrected prior to operating vessel ("NO SAIL" item), e.g.,</p> <ul style="list-style-type: none"> • Prior to carrying cargo </td></tr> </tbody> </table>	IF deficiency:	THEN issue CG-835:	<p>Does NOT immediately impact crew/passenger safety, hull seaworthiness, or the environment, e.g.,</p> <ul style="list-style-type: none"> • Missing placards • Non-metallic expansion joints more than 10 years in service 	<p>That provides a specific time for correcting deficiency, e.g.,</p> <ul style="list-style-type: none"> • "X" number of days • At next drydock 	<p>Allows vessel operations to be MODIFIED to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> • Expired international certificates • Automation defect 	<p>That restricts operation of vessel to meet current vessel conditions, e.g.,</p> <ul style="list-style-type: none"> • Reduced route • Increased crew 	<p>DOES immediately impact crew/passenger safety, hull seaworthiness, or the environment, and cannot be modified to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> • Missing or defective firefighting equipment • Structural defect or damage 	<p>That requires the deficiency to be corrected prior to operating vessel ("NO SAIL" item), e.g.,</p> <ul style="list-style-type: none"> • Prior to carrying cargo
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6	Enter CG-835 data in MIDR.								
7	Enter deficiency data in MSDS.								
8	Initiate Report of Violation (ROV) if necessary.								

Deficiency Summary Worksheet:

Name of Vessel

VIN[illegible]

[illegible]

Deficiencies identified should be listed with MSIS codes. At completion of inspection/examination, any outstanding deficiencies shall be entered in MIDR or PSDR as appropriate. All deficiencies found (outstanding and completed) shall be entered in the Deficiency Summary. Worklist items, which serve only as memory joggers to complete inspection/examination (e.g., test emergency fire pump), should not be coded as deficiencies.

MSIS Codes for Deficiencies:

BS	Ballast	DC	Dry Cargo	IC	I/C Engine
BI	Bilge	ES	Electrical	LS	Lifesaving
BA	Boiler, Aux.	FF	Firefighting	MI	Miscellaneous
BM	Boiler, Main	FL	Fuel	NS	Navigation
CS	Cargo	GS	General Safety	PP	Propulsion
DM	Deck Machinery	HA	Habitation	SS	Steering
DL	Doc., Lics., Pmts.	HU	Hull		

Conversions:

Distance and Energy				
Kilowatts (kW)	X	1.341	=	Horsepower (hp)
Feet (ft)	X	3.281	=	Meters (m)
Long Ton (LT)	X	.98421	=	Metric Ton (t)
Liquid <i>(NOTE: Values are approximate.)</i>				
Liquid	bbbl/LT	m³/t	bbbl/m³	bbbl/t
Freshwater	6.40	1.00	6.29	6.29
Saltwater	6.24	.975	6.13	5.98
Heavy Oil	6.77	1.06	6.66	7.06
DFM	6.60	1.19	7.48	8.91
Lube Oil	7.66	1.20	7.54	9.05
Weight				
1 Long Ton	= 2240 lbs	1 Metric Ton	= 2204 lbs	
1 Short Ton	= 2000 lbs	1 Cubic Foot	= 7.48 gal	
1 Barrel (oil)	= 5.61 ft = 42 gal = 6.29 m³	1 psi	= .06895 Bar = 2.3106 ft of water	
Temperature: Fahrenheit = Celsius (°F = 9/5 °C + 32 and °C = 5/9 (°F – 32))				
0	= -17.8	80	= 26.7	200 = 93.3
32	= 0	90	= 32.2	250 = 121.1
40	= 4.4	100	= 37.8	300 = 148.9
50	= 10.0	110	= 43.3	400 = 204.4
60	= 15.6	120	= 48.9	500 = 260
70	= 21.1	150	= 65.6	1000 = 537.8
Pressure: Bars = Pounds per square inch				
1 Bar	= 14.5 psi	5 Bars	= 72.5 psi	9 Bars = 130.5 psi
2 bars	= 29.0 psi	6 Bars	= 87.0 psi	10 Bars = 145.0 psi
3 Bars	= 43.5 psi	7 Bars	= 101.5 psi	
4 Bars	= 58.0 psi	8 Bars	= 116.0 psi	